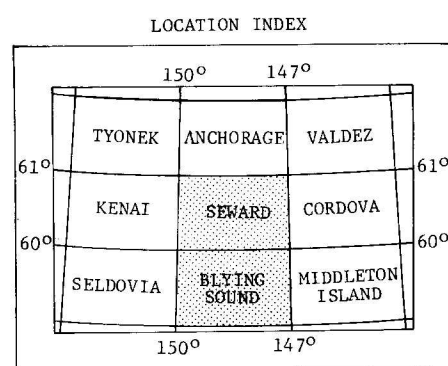
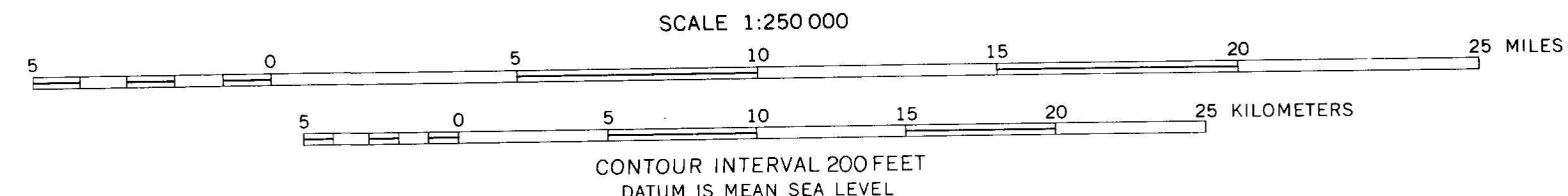


Base from U.S. Geological Survey, 1953



Geology mapped by R. G. Tyndal and J. E. Case 1975-77; sampling and mineralogy by R. B. Tripp and W. D. Crim, 1975-76.

GOLD AND SCHEELITE

MINERALOGICAL MAP SHOWING THE DISTRIBUTION AND ABUNDANCE OF GOLD, SCHEELITE, CHALCOPYRITE, ARSENOPYRITE, MINIMUM AND SAPPHIRE CORUNDUM IN HEAVY-MINERAL CONCENTRATES IN THE SEWARD AND BLYING SOUND QUADRANGLES, ALASKA

By
R. B. Tripp and W. D. Crim
1978

Reconnaissance geochemical and mineralogical sampling was done in the Seward and Blying Sound quadrangles during 1975 and 1976 as part of the Alaska Mineral Resource Assessment Program (AMRAP). These maps show the distribution and abundance of gold, scheelite, chalcopyrite, arsenopyrite, minium, and sapphire corundum in heavy-mineral concentrates.

Heavy-mineral concentrate samples were collected at 525 sites from active channels and, locally, from the interface of streambeds and intermediate- to low-tide beaches. The heavy-mineral concentrates were obtained by panning stream sediments in the field to remove most of the light minerals. The panned samples were then sieved through a 20-mesh (0.8 mm) screen in the laboratory, and the minus-20 mesh fraction was further separated with bromoform (specific gravity: 2.86) to remove any remaining light-mineral grains. Magnetite and other strongly magnetic heavy minerals were removed from the heavy-mineral fraction using a hand magnet. The remaining sample was passed through a Frantz Isodynamic Separator¹ and a nonmagnetic fraction was obtained at a setting of 0.6 amperes. A split of this nonmagnetic fraction was examined for its mineralogical content using a binocular microscope and X-ray diffraction. The nonmagnetic concentrates primarily contain phyllite fragments, muscovite, sphene, zircon, apatite, rutile, and anatase. Small amounts of other minerals such as gold, scheelite, minium, sapphire corundum, and most sulfides will also be found in this fraction.

¹The use of trade names is for descriptive purposes only and does not constitute endorsement of those products by the U.S. Geological Survey.

This map is one of a series, all bearing the number MF-880. Background information relating to this map is published as U.S. Geological Survey Circular 760, available free of charge from the U.S. Geological Survey, Reston, VA. 22092